REMARKS

Claims 1-6, 21-26, and 34-35 were previously pending. Claims 36-43 are newly added. Thus, claims 1-6, 21-26, and 34-43 are all the claims pending in the application. Claims 1-6, 21-26, and 34-35 stand rejected on prior art grounds. Applicants respectfully traverse these rejections based on the following discussion.

I. The 35 U.S.C. §101 Rejection

[0001] Claims 1-6, 21-26, and 34-35 stand rejected under 35 U.S.C. §101 because the Office Action asserts that the claimed invention is directed to non-statutory subject matter. Specifically, the Office Action indicates that in order for a claimed process to be patentable subject matter under 35 U.S.C§101, it must be either tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. The Applicants respectfully disagree and argue that independent claims 1 and 21, as amended are both tied to another statutory class and transform underlying subject matter.

[0002] The machine-or-transformation test cited by the Examiner was reaffirmed by the U.S. Court of Appeals in *In re Bilski*, __ F.3d __ (Fed. Cir. 2008)(*en banc*). As amended, claims 1 and 6 include process steps that are tied to a machine, in this case a computer. Specifically, process of creating a plurality of distinct demand records from a single demand record is performed by a computer and so is the process of performing processing. Additionally, claims 1 and 6 contain multiple processes whereby underlying subject matter is transformed into a

different state or thing. For example, the creating process effectively transforms a single demand record (i.e., underlying subject matter) into a plurality of distinct demand records (i.e., multiple different things). Furthermore, the process of performing core processing effectively transforms the multiple distinct demand records (i.e., underlying subject matter) into a supply chain plan (i.e., a different thing) and the results of the core processing are also used as the basis for outputting a report (i.e., another different thing).

[0003] Therefore, the Applicants submit that independent claims 1 and 21 are directed to statutory subject matter under 35 U.S.C. §101. Further, dependent claims 2-6 and 21-26 are similarly patentable. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw these rejections.

II. The Prior Art Rejections

[0004] Claims 1-4 and 6 stand rejected under 35 U.S.C. §102(e) as being anticipated by Crampton (U.S. Patent No. 6,898,472), hereinafter referred to as Crampton. Claims 5, 21-26, and 34-35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Crampton in view of Moodie, "Demand Management: The Evaluation of Price and Due Date Negotiation Strategies Using Simulation", hereinafter referred to as Moodie. Applicants respectfully traverse these rejections based on the following discussion.

[0005] The Applicants submit that the cited prior art references alone and/or in combination do not teach or suggest the following limitations of amended independent claim 1: (1) "creating, by said computer, from a single demand record for a demand, a plurality of distinct

demand records for said demand, wherein each of said distinct demand records for said demand has a single one of said different demand dates"; and (2) "performing, by said computer, core processing to create said supply chain plan, wherein said core processing separately and simultaneously considers each one of said distinct demand records for said demand when creating said supply chain plan, attempting to satisfy, at a same time, each of said multiple different demand dates".

[0006] In rejecting claim 1 (and similarly in rejecting claim 21), the Office Action provides that Crampton discloses "creating, from a single demand record, a plurality of distinct demand records, wherein each of said distinct demand records has a different demand date (see col. 12: In. 11-45, disclosing determining a range of start dates, need dates, and preference dates for an order; col. 7: In. 63 - col. 8: In. 3; col. 10: In. 42-55; figures 7 A-D)".

[0007] Pre the Abstract, Crampton teaches a system and method for planning the use of supply chain network resources by processing one or more groups of orders. The system and method is an attribute based rather than an order or stock keeping unit based system and method allowing for greater flexibility and improved simplicity in obtaining planning solutions. The system and method defining stock keeping unit attribute definition groups, which allows orders to be prioritized and organized into slices of orders such that an optimal planning solution is generated.

[0008] Crampton uses a number of acronyms. An SKU is a stock keeping unit (see col. 8, lines 38-39). Col. 9, lines 5-11, further provides that each SKU associates an Item and a Location, that the SKU has predefined and user defined attributes, and that the SKU may be raw material, work-in-process ("WIP"), finished good, etc. Col. 8, lines 42-63, provides that a SAD

Group is a SKU attribute description group and that each SAD Group can have a list of SKUs and a list of attribute values for some or all of the attributes associated with orders. Col. 8, lines 18-29, provides that an order consists of defined attributes (E.g., an identifier, SKU, quantity, start date, need date, customer, priority, and effective need date).

[0009] Col. 12, lines 11-45, of Crampton discusses particularly the various attributes which may be used to define a SAD group. These attributes include, for example, an item identifier, planned location, requested location, start date-begin, start date-end, need date-begin, preference date end, minimum quantity, maximum quantity, minimum priority, maximum priority, customer name, customer location, SKU and any other user defined attributes useful for implementing the APB system 100. Col. 7, line 63 - col. 8, line 3, refers to a particular attribute that may be assigned to a SAD group, namely "maximum earliness" or the time interval before the need date that the requested good will be accepted.

[0010] Col. 10, lines 42-55, refers generally to the idea that a reliable planning system will be able to accommodate idiosyncrasies, rules and goals of many types of manufacturers. For example, it should be able to accommodate "just in time" type manufacturer and earliest date possible type manufactures. Thus, it would be desirable to have a system that recognizes the particular needs of a manufacturer. The invention of Crampton attempts to do this through the use of SAD groups.

[0011] More specifically, col. 11, lines 20-52, discusses how such SAD groups are used in the implementation of the system 100. Specifically, the system of Crampton organizes SKUs and user defined attribute values into SKU attribute description groups (i.e., SAD groups). A SAD group for orders will be associated with any orders having at least the same attributes that

define the SAD group. As discussed above, the cited portion of col. 12 provides a detailed listing of exemplary attributes that can be used to define a SAD group. Orders that meet the conditions defined by a SAD group are considered to be part of that group (i.e., orders which have the attributes for a given SAD group are considered to be part of that group). For example, if a SAD group has defined attributes of Sedan and Atlanta, then an order from Atlanta for a sedan with power windows would be a part of that SAD group. The system uses the SAD groups to, for example, define attribute-sensitive bills of materials for orders, define attribute sensitive inventory, define attribute sensitive substitutions, etc.

[0012] Thus, the cited portions of Crampton, discussed above, essentially disclose each order may have defined attributes and these defined attributes may include multiple different dates (e.g., a start date, a need date, a preference date) among other attributes (e.g., location, quantity minimum priority, maximum priority, etc.). SAD groups are also created with each SAD group being defined by attributes or attribute ranges (e.g., all orders from a given location, all orders with a start date within a given range of start dates, etc.). Then, each order is placed in a SAD group for which it qualifies based on its defined attributes. If an order qualifies for more than one SAD group, that order with all its attributes (i.e., a duplicate thereof) is placed in each of the SAD groups for which it qualifies (see col. 11, lines 19-52).

[0013] The fact that Crampton discloses "determining a range of start dates, need dates, and preference dates for an order" does not equate to the claimed limitation of the present invention. Crampton simply sorts orders into groups, each order in a group having similar attributes (e.g., falling within a range of start dates, need dates, preference dates, etc.). It does not create new orders. In other words, Crampton does not disclose the claimed limitation of

"creating, by said computer, from a single demand record for a demand, a plurality of distinct demand records for said demand, wherein each of said distinct demand records for said demand has a single one of said different demand dates", as claimed.

[0014] It should be noted that figures 7A-7D are also cited as disclosing this limitation. However, Figures 7A-7D are exemplary timelines depicting inventory levels and need quantity over a period of time. It is unclear how such time lines could illustrate the idea of creating distinct demand records each with a different demand date from a single demand record.

[0015] In response to a similar argument as previously presented, the Office Action argued as follows: "In column 12, Crampton teaches a need date and a preferred date for each order (i.e. a single demand record with a plurality of demand dates). The need date and the preferred date each supply a range of dates for which the order can be fulfilled. The need and preferred dates and their ranges are considered when creating the supply chain plan (see column 12). Thus, Crampton teaches creating a plurality of demand records with different demand dates from a single demand record. (see also column 17: lines 51-61 and table, disclosing an order placed in multiple groups which can be sorted by different attributes, including need date and preferred date)."

[0016] The Applicants acknowledge that col. 12 does indeed disclose that a single order may contain multiple different demand dates (e.g., a need date and a preference date). However, it does not teach or imply in any way subsequently creating, based on this single order, multiple new orders each having only one of the different demand dates. Additionally, col. 17, lines 51-61, simply discloses displaying a list of unscheduled orders, which "ensures that the same order is not scheduled twice because it may match multiple criteria in the SAD Groups".

[0017] In rejecting claim 1 (and similarly in rejecting claim 21), the Office Action further provides that Crampton discloses "performing core processing to create said supply chain plan, wherein said core processing considers all of said distinct demand records (see col. 10: In. 5-55; col. 13: In. 54 - col. 14: In. 42; col. 16: In. 22 - col 17: In. 29; col. 21: In. 35-col. 22: In. 10)." The Applicants respectfully disagree.

[0018] Col. 10, lines 5-24, discusses an exemplary situation where an automaker has multiple customers who submit orders. A plan is generated for optimal use of the resources for fulfilling multiple orders. Each order contains relevant information that may be used to create certain parameters when scheduling orders. Col. 10, lines 25-41, discusses that ideally a planning system will accommodate important factors when planning (e.g., accommodate already scheduled orders before attempting to fulfil new orders). As discussed above, col. 10, lines 42-55, refers generally to the idea that a reliable planning system will be able to accommodate idiosyncrasies, rules and goals of many types of manufacturers. For example, it should be able to accommodate "just in time" type manufacturer and earliest date possible type manufactures. Thus, it would be desirable to have a system that recognizes the particular needs of a manufacturer. The invention of Crampton attempts to do this through the use of SAD groups.

[0019] Col. 13, line 54 - col. 14, line 42, describes the processes 200 and 220 of Crampton for creating a plan or modifying an existing plan for utilizing network resources in order to fulfull demand. 100 is an initializing flow process and 220 is an order planning flow process. Process 200 comprises loading of a model 202, initializing buckets 204, placing initial assignments and allocating materials 206, and creating a temporary table of unplanned orders. Process 220 comprises selecting a group of orders associated with a particular SAD group 222, a

window is loaded with the selected group 224, each order in the window is prioritized 226 and highest priority order not planned is planned 228 iteratively, assignments are written 232, the temporary table is unloaded 234, and repeat for next group of orders.

[0020] Col. 16, line 22 – col. 17, line 29, simply refers in more detail to step 226 referenced above where each order in a window showing all orders in a selected SAD group are prioritized. Figure 4 further defines the step 228 referenced above where the highest priority order not planned is planned. At step 402 the next priority order is selected for processing, and constraints and/or other rules are defined providing parameters for planning that selected order (see col. 21, lines 22-35). Col. 21, line 35-col. 22, line 10, describes how parameters defined in step 402 may affect the way a selected order is scheduled/planned.

[0021] Thus, the Applicants submit that neither the cited portions, nor any other portion, of Crampton discloses "performing, by said computer, core processing to create said supply chain plan, wherein said core processing separately and simultaneously considers each one of said distinct demand records for said demand when creating said supply chain plan, attempting to satisfy, at a same time, each of said multiple different demand dates", as claimed. Furthermore, the Applicants submit that Crampton actually teaches away from doing so because once an order is planned/scheduled it will not be planned scheduled again (even if it is contained in multiple SAD groups).

[0022] Specifically, as mentioned above, Crampton discloses planning the utilization of resources (process 220, see col. 14, lines 18-42). During planning 220, SAD groups (i.e., groups of orders) are prioritized (see step 336) and a first SAD group is selected 222, according to the established priority. The orders within the selected SAD group are then prioritized 226 and

scheduled (i.e., a processing is performed in order to create a plan) 230, according to the established priority. Then, a second SAD group is selected and so on. The prioritization process is used to ensure that orders of the highest significance are fulfilled satisfactorily (see col. 17, line 1-50) and may be based on group/order attributes.

[0023] Col. 19, line 23-col. 56, line 19 detail the scheduling process used for a given order, once selected. It should be noted that the specification of Crampton only discloses the scheduling process itself being based on a single demand date (e.g., the need date, see col. 19, lines 8-10; col. 22, lines, 10-12; col. 24, lines 1-10; etc.), not multiple different demand dates. Additionally, as mentioned above, col. 17, lines 51-61, specifically provides for displaying a list of unscheduled orders, which "ensures that the same order is not scheduled twice because it may match multiple criteria in the SAD Groups". Consequently, Crampton does not disclose the claimed core processing which "separately and simultaneously considers each one of said distinct demand records for said demand when creating said supply chain plan, attempting to satisfy, at a same time, each of said multiple different demand dates".

[0024] It should be noted that in rejecting dependent claim 5 and similarly in rejecting independent claim 21, the Office Action acknowledges that Crampton does not disclose the claimed selecting process. Thus, the Office Action cites Moodie for the sole purpose of disclosing "using pricing to determine when to deliver an order (see at least figure 2)." While Moody may disclose using pricing to determine, the Applicants submit that it Moodie does not teach or disclose any of the distinguishing features of independent claims 1 and 21 as set out above.

[0025] Therefore, the Applicants submit that amended independent claims 1 and 21 is

patentable over the cited prior art reference. Further, dependent claims 2-6, 22-26, and 36-43 are similarly patentable, not only by virtue of their dependency from a patentable independent claim, but also by virtue of the additional features of the invention they define. Moreover, the Applicants note that all claims are properly supported in the specification and accompanying drawings, and no new matter is being added. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

III. Formal Matters and Conclusion

With respect to the rejections to the claims, the claims have been amended, above, to overcome these rejections. In view of the foregoing, Applicants submit that claims 1-6, 21-26, and 34-43, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. Therefore, the Examiner is respectfully requested to reconsider and withdraw the rejections to the claims and further to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary. Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0456.

Respectfully submitted,

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